

DAP Database

This is the Microsoft Access database that is the source for the Data Access Project web application hosted at <http://www.tucson.ars.ag.gov/dap>. It contains two (mostly) separate datasets: one for data collected by analog charts (digitized later), and one for data collected by digital gages.

Analog data tables:

PrecipEvents: Each row of this table describes a precipitation event.

Relevant fields:

| | |
|-------------------|---|
| <i>Id:</i> | Primary key |
| <i>Watershed:</i> | Watershed identifier |
| <i>Gage:</i> | Gage identifier |
| <i>Date_Time:</i> | Date and time precipitation event occurred |
| <i>Month:</i> | Month precipitation event occurred |
| <i>Year:</i> | Year precipitation event occurred |
| <i>TimeCode:</i> | Boolean value to indicate if elapsed time was estimated |
| <i>Duration:</i> | Duration of event in minutes |
| <i>Depth:</i> | Depth of rainfall in inches |

PrecipBreaks: Each row of this table describes a precipitation breakpoint that is part of a precipitation event (see PrecipEvents table)

Relevant fields:

| | |
|-----------------------|---|
| <i>eventID:</i> | Foreign key (PrecipEvents.id) |
| <i>Duration:</i> | Elapsed time of breakpoint in minutes |
| <i>TimeCode:</i> | Boolean value to indicate if elapsed time was estimated |
| <i>AccumRainfall:</i> | Accumulated rainfall in inches |
| <i>RainfallCode:</i> | Boolean value to indicate if the rainfall value was estimated |

PrecipDailyTotals: Each row of this table indicates rainfall recorded on a particular raingage for the day.

Relevant fields:

| | |
|--------------------|---|
| <i>Watershed:</i> | Watershed identifier |
| <i>Gage:</i> | Gage identifier |
| <i>Date:</i> | The full date for which the daily rainfall is recorded |
| <i>Year:</i> | The year for which the daily rainfall is recorded |
| <i>Month:</i> | The month for which the daily rainfall is recorded |
| <i>Day:</i> | The day of month for which the daily rainfall is recorded |
| <i>TotalDepth:</i> | The total depth of rainfall in inches for this particular day |

GageOffDates: Some analog raingages are turned off for a period during the year. During this time, no data is recorded. It is important, then, to take refer to this table when making queries for analog precipitation data.

Relevant fields:

| | |
|-------------------|---|
| <i>Watershed:</i> | Watershed identifier |
| <i>Gage:</i> | Gage identifier |
| <i>OffStart:</i> | The date when the raingage was turned off |
| <i>OffEnd:</i> | The date when the raingage was turned back on |

RunoffEvents: Each row of this table describes a runoff event.

Relevant fields:

| | |
|-------------------------------|---|
| <i>eventID:</i> | Primary key |
| <i>Watershed:</i> | Watershed identifier |
| <i>Station:</i> | Flume identifier |
| <i>Date_Time:</i> | Date and time runoff event occurred |
| <i>Month:</i> | Month runoff event occurred |
| <i>Year:</i> | Year runoff event occurred |
| <i>EstCode:</i> | Boolean value to indicate if the runoff value was estimated |
| <i>WatershedVol:</i> | Total runoff volume in inches over the watershed |
| <i>StationPeakRunoffRate:</i> | Peak rate in inches per hour |
| <i>Duration:</i> | Duration in minutes |

RunoffBreaks: Each row of this table describes a runoff breakpoint that is part of a runoff event (see RunoffEvents table)

Relevant fields:

| | |
|-----------------------------|---|
| <i>eventID:</i> | Foreign key (RunoffEvents.eventID) |
| <i>ElapsedTime:</i> | Elapsed time of breakpoint in minutes |
| <i>EstCode:</i> | Boolean value to indicate if runoff was estimated |
| <i>WatershedRunoffRate:</i> | Runoff rate in inches per hour over the watershed |

RunoffDailyTotals: Each row of this table indicates runoff recorded on a particular flume for the day.

Relevant fields:

| | |
|---------------------------|--|
| <i>Watershed:</i> | Watershed identifier |
| <i>Flume:</i> | Flume identifier |
| <i>Date:</i> | The full date for which the daily runoff is recorded |
| <i>Year:</i> | The year for which the daily runoff is recorded |
| <i>Month:</i> | The month for which the daily runoff is recorded |
| <i>Day:</i> | The day of month for which the daily runoff is recorded |
| <i>TotalWatershedVol:</i> | The total runoff volume in inches over the watershed for this particular day |

Digital data tables:

digPrecipEvents: Each row of this table describes a precipitation event.

Relevant fields:

| | |
|-------------------|--|
| <i>eventID:</i> | Primary key |
| <i>webID:</i> | Watershed and Gage identifier (first 2 digits identify watershed, last 3 digits identify gage) |
| <i>startTime:</i> | Date and time precipitation event occurred |
| <i>month:</i> | Month precipitation event occurred |
| <i>year:</i> | Year precipitation event occurred |
| <i>duration:</i> | Duration of event in minutes |
| <i>depth:</i> | Depth of rainfall in inches |

digPrecipPoints: Each row of this table describes a precipitation breakpoint that is part of a precipitation event (see digPrecipEvents table)

Relevant fields:

| | |
|-----------------------|---------------------------------------|
| <i>eventID:</i> | Foreign key (digPrecipEvents.eventID) |
| <i>duration:</i> | Elapsed time of breakpoint in minutes |
| <i>accumRainfall:</i> | Accumulated rainfall in inches |

digDailyPrecipTotals: Each row of this table indicates rainfall recorded on a particular raingage for the day.

Relevant fields:

| | |
|---------------|--|
| <i>webID:</i> | Watershed and Gage identifier (first 2 digits identify watershed, last 3 digits identify gage) |
| <i>date:</i> | The full date for which the daily rainfall is recorded |
| <i>year:</i> | The year for which the daily rainfall is recorded |
| <i>month:</i> | The month for which the daily rainfall is recorded |
| <i>day:</i> | The day of month for which the daily rainfall is recorded |
| <i>depth:</i> | The total depth of rainfall in inches for this particular day |

digRGoffDates: Some digital raingages are turned off for a period during the year. During this time, no data is recorded. It is important, then, to take refer to this table when making queries for analog precipitation data. (Note: this table has yet to be populated.)

Relevant fields:

| | |
|------------------|--|
| <i>webID:</i> | Watershed and Gage identifier (first 2 digits identify watershed, last 3 digits identify gage) |
| <i>OffStart:</i> | The date when the raingage was turned off |
| <i>OffEnd:</i> | The date when the raingage was turned back on |

digRunoffEvents: Each row of this table describes a runoff event.

Relevant fields:

| | |
|------------------------|--|
| <i>eventID:</i> | Primary key |
| <i>webID:</i> | Watershed and Flume identifier (first 2 digits identify watershed, last 3 digits identify flume) |
| <i>startTime:</i> | Date and time runoff event occurred |
| <i>month:</i> | Month runoff event occurred |
| <i>year:</i> | Year runoff event occurred |
| <i>duration:</i> | Duration in minutes |
| <i>volume:</i> | Total runoff volume in inches over the watershed |
| <i>peakRunoffRate:</i> | Peak rate in inches per hour |

digRunoffPoints: Each row of this table describes a runoff breakpoint that is part of a runoff event (see digRunoffEvents table)

Relevant fields:

| | |
|---------------------|---|
| <i>eventID:</i> | Foreign key (digRunoffPoints.eventID) |
| <i>ElapsedTime:</i> | Elapsed time of breakpoint in minutes |
| <i>rate:</i> | Runoff rate in inches per hour over the watershed |

digDailyRunoffTotals: Each row of this table indicates runoff recorded on a particular flume for the day.

Relevant fields:

| | |
|---------------|--|
| <i>webID:</i> | Watershed and Flume identifier (first 2 digits identify watershed, last 3 digits identify flume) |
| <i>date:</i> | The full date for which the daily runoff is recorded |
| <i>year:</i> | The year for which the daily runoff is recorded |
| <i>month:</i> | The month for which the daily runoff is recorded |
| <i>day:</i> | The day of month for which the daily runoff is recorded |
| <i>depth:</i> | The total runoff volume in inches over the watershed for this particular day |